

Fig. 1

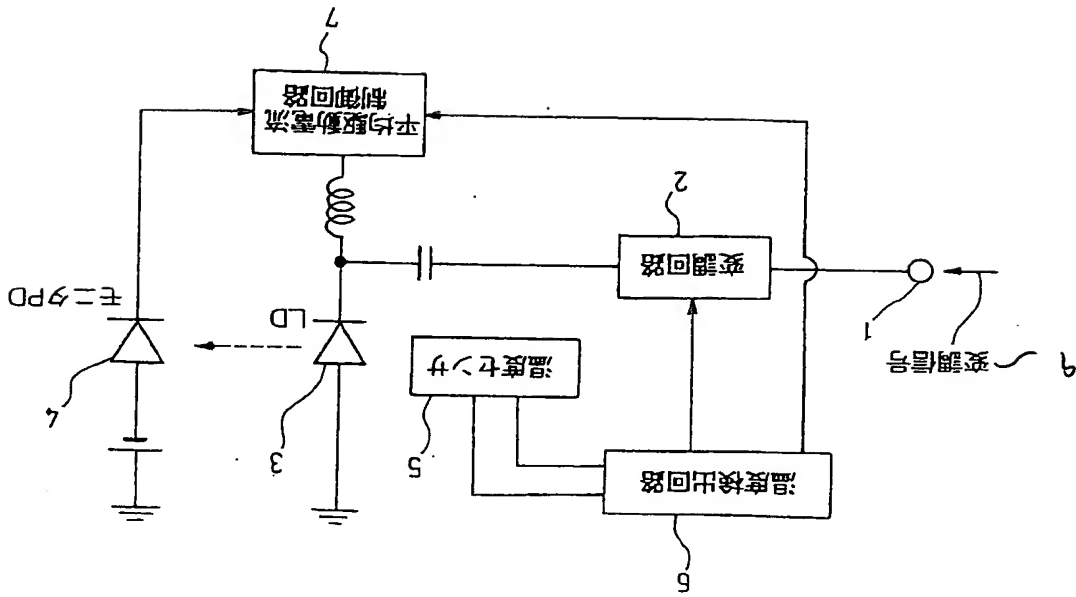


FIG. 1

- 1 MODULATION SIGNAL
- 2 MODULATION CIRCUIT
- 3 MONITOR PD
- 4 TEMPERATURE SENSOR
- 5 TEMPERATURE DETECTING CIRCUIT
- 6 AVERAGE DRIVING CURRENT CONTROL CIRCUIT

Fig. 2

FIG. 2
a: OPTICAL OUTPUT
b: TEMPERATURE
c: PRESENT INVENTION

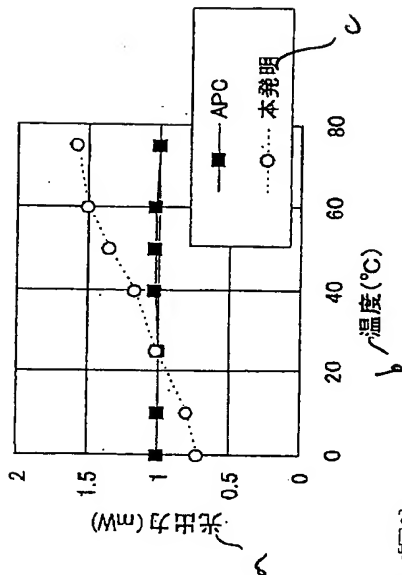


Fig. 3

FIG. 3
a: RELAXATION OSCILLATION FREQUENCY
b: TEMPERATURE
c: PRESENT INVENTION

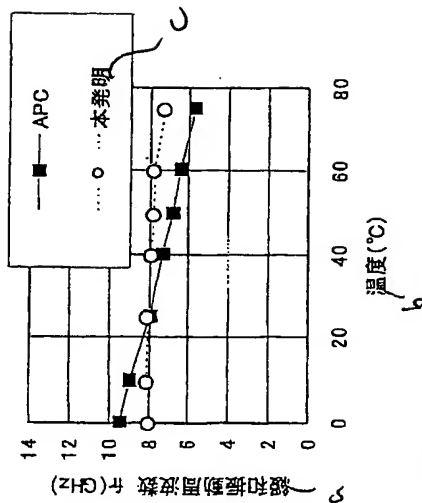


Fig. 4

FIG. 4
a: SLOPE EFFICIENCY
b: TEMPERATURE

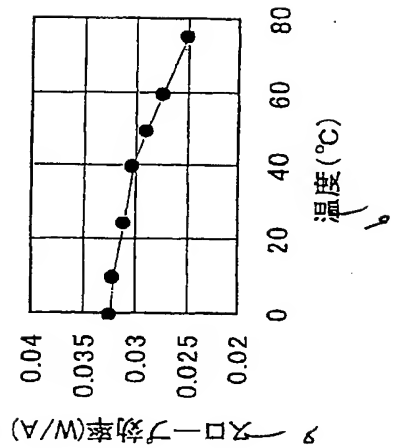


Fig. 5

3/7

[図5]

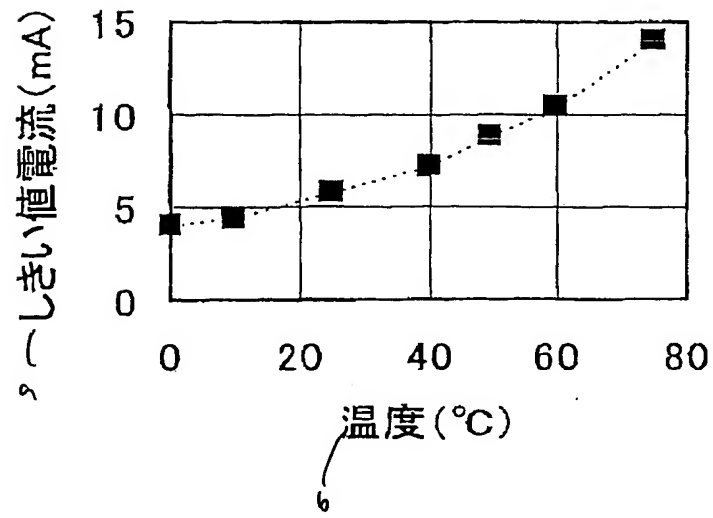


FIG. 5

a — THRESHOLD CURRENT
TEMPERATURE
b

Fig. 6

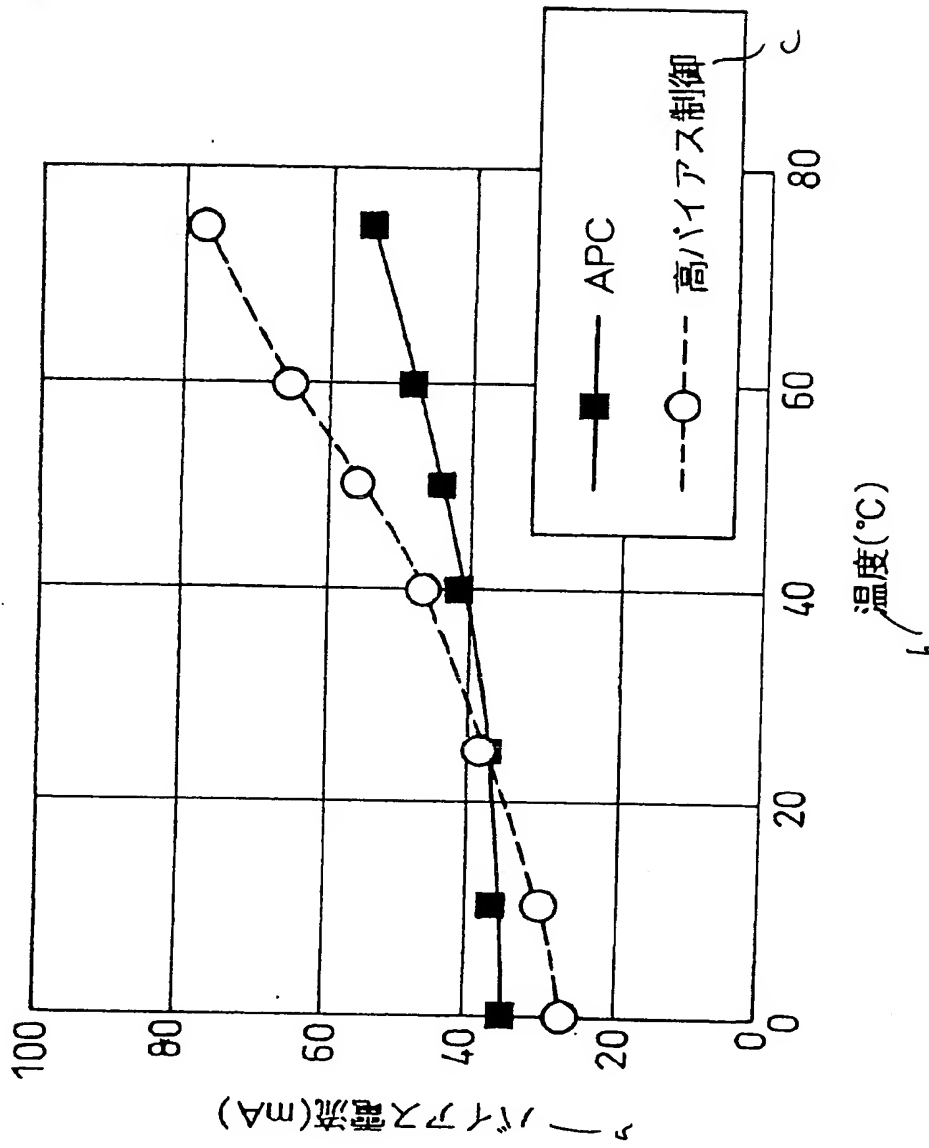


FIG. 6

a) BIAS CURRENT

b) TEMPERATURE

c) HIGH BIAS CONTROL

Fig. 7

[図7]

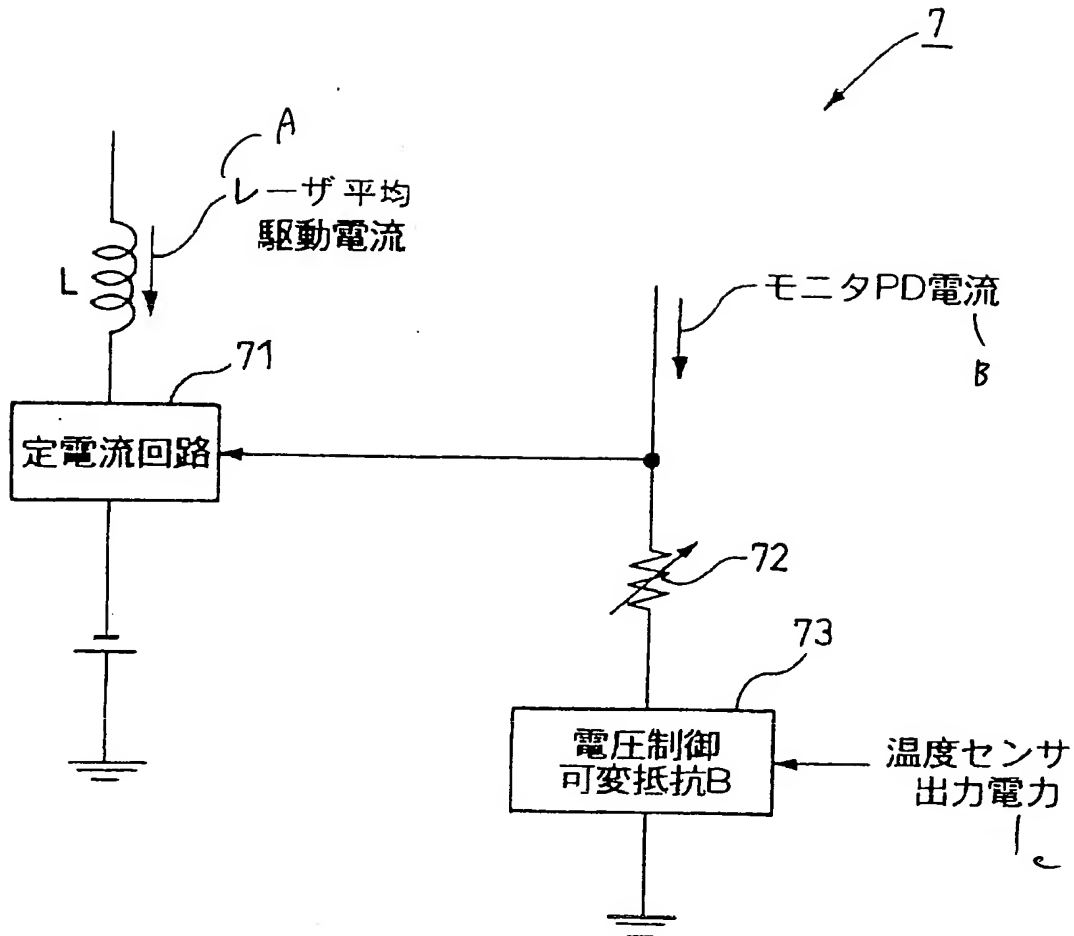


FIG. 7

71 CONSTANT CURRENT CIRCUIT

73 VOLTAGE CONTROL TYPE VARIABLE RESISTOR B

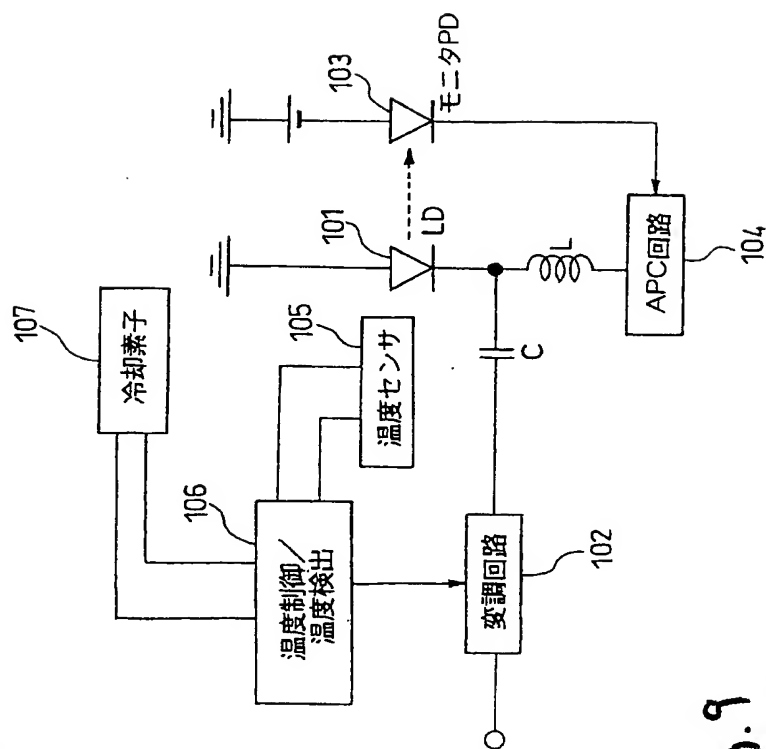
A LASER AVERAGE DRIVING CURRENT

B MONITOR PD CURRENT

C TEMPERATURE SENSOR OUTPUT POWER

Fig. 8

- FIG. 8
- 102 MODULATION CIRCUIT
 - 103 MONITOR PD
 - 104 APC CIRCUIT
 - 105 TEMPERATURE SENSOR
 - 106 TEMPERATURE CONTROL/TEMPERATURE DETECTION
 - 107 COOLING ELEMENT



- FIG. 9
- DRIVING CURRENT
 - TEMPERATURE
 - APC CONTROL

Fig. 9

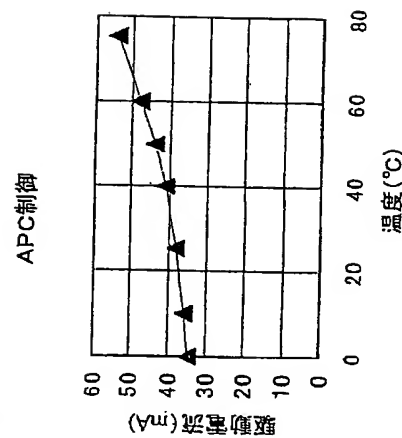


Fig. 10
~~[図10]~~

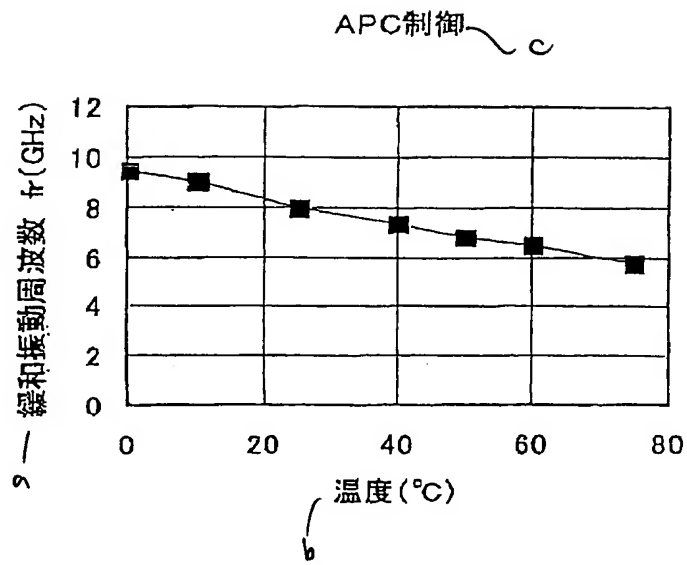


FIG. 10

a - RELAXATION OSCILLATION FREQUENCY
 b - TEMPERATURE
 c - APC CONTROL